

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method for introducing exogenic bioparticles into biological membrane-enveloped structures, comprising:
preparing a sample comprising biological membrane-enveloped structures, magnetically susceptible particles and exogenic bioparticles, and
applying a magnetic alternating field to said sample, ~~whereby an increase of~~ in the thermal energy of said magnetically susceptible particles causes the formation of pores in said biological membrane-enveloped structures, wherein:
~~wherein~~-said pores allow the introduction of said exogenic bioparticles into said biological membrane-enveloped structures,
~~wherein~~-said biological membrane-enveloped structures are selected from the group consisting of cells, bacteria, virus particles, and organelles at a subcellular level, ~~and~~
~~wherein~~-said magnetically susceptible particles comprise magnetic iron-containing crystals, and
said magnetic field has an alternating field direction of a frequency in the range of 1-5 MHz.
2. (Canceled).
3. (Previously Presented) The method according to claim 1, wherein said magnetic field has a field strength of 1 mT.
4. (Previously Presented) The method according to claim 1, wherein said magnetic field is non-homogeneous and has an alternating gradient field direction.
- 5-6. (Canceled).

7. (Previously Presented) The method according to claim 1, wherein said exogenic bioparticles are selected from the group consisting of DNA molecules, RNA molecules, proteins, other biopolymers, peptides, chemical preparations, organic compounds, inorganic compounds, synthetic polymers and combinations thereof.

8. (Canceled).

9. (Previously Presented) The method according to claim 1, for use for lysis of biological membrane-enveloped structures.

10. (Previously Presented) The method according to claim 1, for use for modifying the genetic code of biological membrane-enveloped structures.

11. (Withdrawn) A device for performing the method as defined in claim 1, comprising at least one coil for generating a magnetic alternating field, optionally, a thermostat for accurate temperature control of said at least one coil, a means for variable and accurate timing control of the time during which said alternating current is on and during which a sample to be treated is exposed to said applied magnetic field, and control system for accurate setting of strength and frequency of said alternating current.

12. (Previously Presented) The method according to claim 2, wherein said magnetic field has a field strength of 1 mT.

13. (Previously Presented) The method according to claim 2, wherein said magnetic field is non-homogeneous and has an alternating gradient field direction.

14-15. (Canceled).

16. (Previously Presented) The method according to claim 2, wherein said bioparticles are selected from the group consisting of DNA molecules, RNA molecules, proteins, other biopolymers, peptides, chemical preparations, organic compounds, inorganic compounds, synthetic polymers and combinations thereof.

17. (Canceled).

18. (Previously Presented) The method according to claim 2, for use for lysis of biological membrane-enveloped structures.

19. (Previously Presented) The method according to claim 2, for use for modifying the genetic code of biological membrane-enveloped structures.

20. (Withdrawn) A device for performing the method as defined in claim 2, comprising at least one coil for generating a magnetic alternating field, optionally, a thermostat for accurate temperature control of said at least one coil, a means for variable and accurate timing control of the time during which said alternating current is on and during which a sample to be treated is exposed to said applied magnetic field, and control system for accurate setting of strength and frequency of said alternating current.

21. (Previously Presented) The method according to claim 1, wherein said applying a magnetic alternating field to said sample increases the thermal and the kinetic energy of said magnetically susceptible particles.

22. (Previously Presented) The method according to claim 2, wherein said applying a magnetic alternating field to said sample increases the thermal and the kinetic energy of said magnetically susceptible particles.